



Environmental Resources, LLC

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February 9, 2021

Mr. Paul Tweeten
Valley County Commissioner
501 Court Square, Box 1
Glasgow, Montana 59230

Subject: Corrective Action Work Plan
Mike's Muffler, Glasgow, Montana
DEQ Facility ID No. 53-13598
DEQ Release No. 4333, Work Plan ID 34257

Dear Mr. Tweeten:

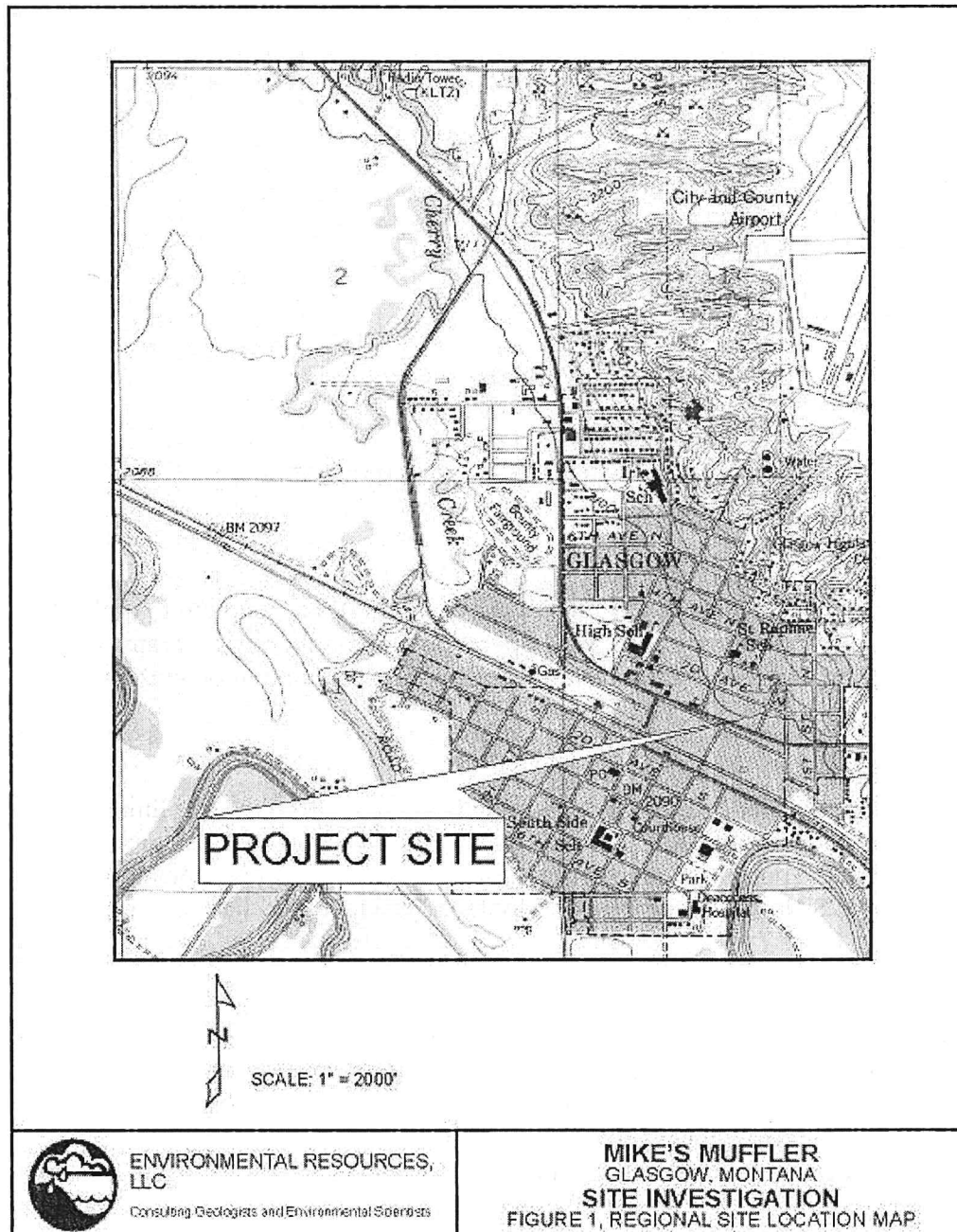
Environmental Resources, LLC is pleased to submit this document to outline activities associated with additional operation and monitoring of a remediation system intended to mitigate subsurface petroleum contamination at the above referenced petroleum release site.

Site Location

The Mike's Muffler petroleum release site is located within the city limits of Glasgow, Montana at 320 1st Avenue North as shown in Figure 1. The site is situated in the northeast quarter of the southwest quarter of Section 12, Township 28 North, Range 39 East, Montana Principal Meridian.

Site Geology

Site geology is characterized by fine-grained fluvial sediments associated with the Milk River which is situated approximately 2000 feet southeast of the project site. Highly plastic, dense silty clay and sandy clay is interbedded with fine- to coarse-grained sand and gravel intervals. Local bedrock consists of the Cretaceous Bearpaw Shale and depth to bedrock is not precisely known. Groundwater is encountered at approximately 12-14 feet below ground surface. Shallow groundwater resources that were encountered during this investigation are not considered to be potable and are not utilized for human consumption.



Scope of Work

Proposed tasks to be performed within the scope of this work plan include the following:

- 1) Replace the remediation blower and continue to operate the remediation system focusing air injection in the areas near monitoring wells MW-3 and MW-11.
- 2) Monitor and sample all site monitoring wells during April 2021 and October 2021.
- 3) Analyze all groundwater samples in accordance with Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases.
- 4) Validate all laboratory data.
- 5) Prepare a Standardized Generic Applications Report (AR-07).

System Operation and Monitoring

The remediation system SVE blower is currently not operational and will require replacement. The blower will be replaced with a new Cast one-horsepower regenerative blower. The blower will be furnished and installed by TSD Technical Specialists, Billings, MT.

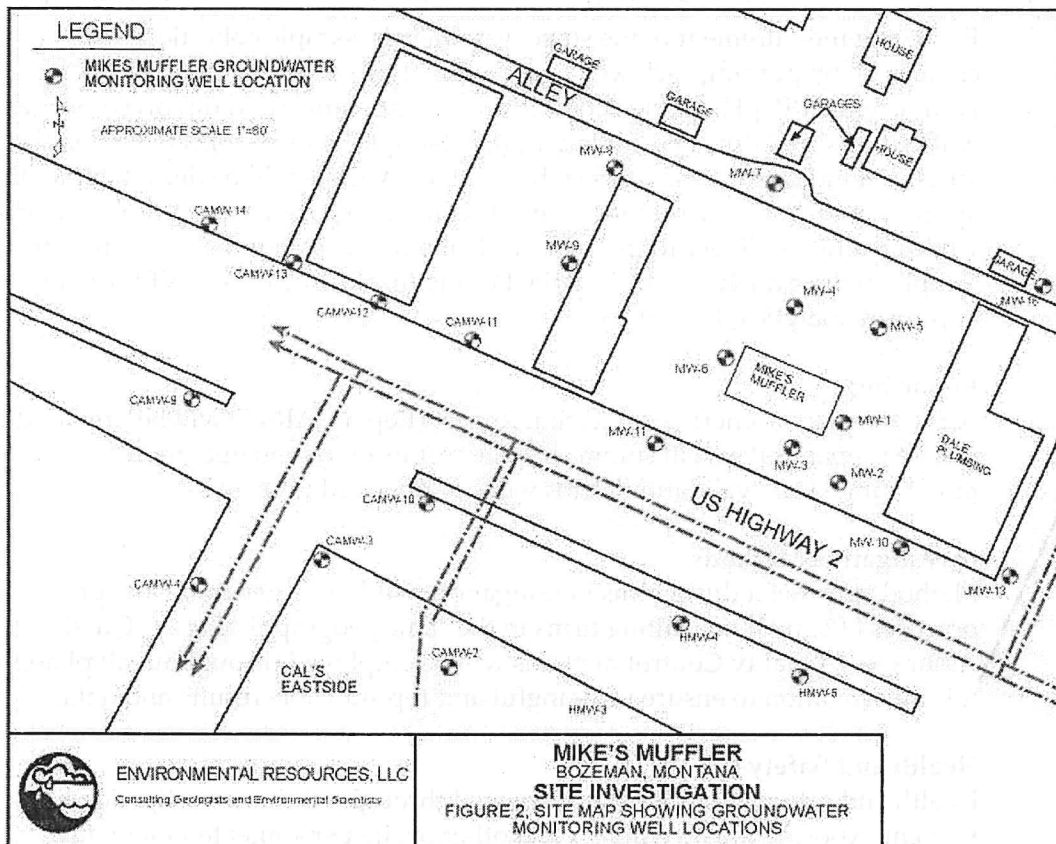
The SVE/AS system will be operated to concentrate air injection into the subsurface near the vicinities of monitoring wells MW-3 and MW-11. Negative pressure will be measured using a set of magnehelic gauges, air flow rates will be measured using a handheld air velocity meter and volatile petroleum hydrocarbon production will be measured using a PID. Data collection will occur at startup, at one hour intervals for eight hours and at 24 hours following startup. Additional data will be collected from the remediation system and surrounding monitoring wells semi-annually during the period of operation.

Groundwater Sample Collection and Analysis

Groundwater monitoring will occur at system startup in April 2021 and during October 2020 with groundwater sample collection from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-9, MW-10 and MW-11 as shown on Figure 2. All of the well covers will be opened and the locking caps removed at least 30 minutes prior to obtaining static water level measurements. Static water levels will be measured from a reference point on top of the north side of each well casing using a Keck ET-89 electronic water level indicator. The water level indicator will be decontaminated prior to each measurement by scrubbing the indicator tip in an *Alconox*® wash solution, rinsing with a 10% methanol solution and triple rinsing with distilled water.

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Following measurement of the static water levels, sample collection will commence by purging each well using a low flow sampling pump. Indicator parameters ORP, pH, specific conductance, temperature and dissolved oxygen will be measured during sample purging. Samples will be collected when the measured indicator parameters stabilize. Each sample will be decanted into the appropriate laboratory provided sample containers, preserved and placed on ice while awaiting delivery to the analytical laboratory. All of the groundwater samples will be analyzed for Volatile Petroleum Hydrocarbons (VPH) at an approved analytical laboratory.

Reporting

A Standardized Generic Application Report (Report_AR-07) will be prepared that will be prepared that will summarize the results of system operation and monitoring. Data validation forms will be appended to the AR-07 report.

Investigative Methods

Methods practiced during this investigation will follow generally accepted practices of similar consulting firms in the same geographical area. Quality Assurance/ Quality Control methods will be employed throughout all phases of this investigation to ensure meaningful and reproducible results and data.

Health and Safety

Health and safety issues will be addressed throughout this investigation to prevent exposure of site workers and other onsite personnel to potentially hazardous situations and chemical compounds. Several physical hazards will inherently be present throughout the field investigation while heavy equipment is being utilized for soil borings and monitoring well installation. Site specific health and safety precautions and information will be contained in a Health and Safety Plan which will remain onsite during all field activities.

Investigation Derived Waste

Drill cuttings, excess sample materials, drilling fluids, and water removed from a well during installation, development, and aquifer testing and all other investigation derived wastes will be disposed of according to all applicable local, state and federal laws and regulations governing the disposition of investigation derived wastes.

Investigation derived wastes may consist of the following materials:

- Drill cuttings
- Purge water from monitor well sampling
- Used soil and groundwater sampling materials
- Excess sample material (soil and water)